

What is claimed is:

1. A system for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second images include common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said system comprising:
 - 5 a server;
 - a first destination device;
 - 10 a second destination device;
 - a shared network linking the server to the first and second destination devices;
 - wherein the server is adapted to simultaneously transmit the common data to the first and second destination devices
 - 15 via the shared network; and
 - wherein the server is adapted to transmit the first file data to the first destination device via the shared network and the second file data to the second destination device via the shared network.
2. The system of claim 1 further comprising:
 - 5 said server transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the first image and/or the second image can each be re-created by imaging.
3. The system of claim 1:
 - wherein the server is adapted to transmit first descriptive data to the first destination device via the shared

network, said first descriptive data identifying the common
5 data and first file data of the first image; and
wherein the server is adapted to transmit second
descriptive data to the second destination device via the
shared network, said second descriptive data identifying
the common data and second file data of the second image.

4. The system of claim 3:
wherein the first destination device receives the common
data and the first file data via the shared network as
defined by the first descriptive data transmitted to the
5 first destination device from the server.

5. The system of claim 3:
wherein the second destination device receives the common
data and the second file data via the shared network as
defined by the second descriptive data transmitted to the
5 second destination device from the server.

6. The system of claim 3 wherein the server directly
transmits the first descriptive data to the first
destination device and the server directly transmits the
second descriptive data to the second destination device,
5 and wherein the server multicasts the common data, the
first file data and the second file data simultaneously to
the first and second destination devices.

7. The system of claim 3 wherein the server maintains a
list of destination devices and images to be transmitted to
destination devices on the list and multicasts common data
and file data corresponding to the images to be transmitted
5 to destination device on the list.

8. The system of claim 3 wherein the server multicasts the common data, the first file data and the second file data to the first and second destination devices including a unique identifier for the data currently being transmitted.

9. The system of claim 8 wherein the first destination device receives the common data, the first file data and the second file data and stores only the common data and first file data as indicated by the unique identifier.

10. The system of claim 7 wherein the first destination device provides a first notification to the server when the first destination device has received the common data and the file data corresponding to the first descriptive data.

11. The system of claim 10 wherein the server, in response to the first notification, removes the first destination device from the list and discontinues multicasting the file data of the first image, unless another destination device
5 has requested the first image.

12. The system of claim 10 wherein the server, in response to the second notification, removes the second destination device from the list and discontinues multicasting the common data of the second image, unless another destination
5 device has requested an image which includes the common data.

13. The system of claim 10 wherein the first destination device reconstructs the image corresponding to the first descriptive data.

14. The system of claim 1 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function of destination 5 device restore time and as a function of total bandwidth of the streams being transmitted.

15. The system of claim 1 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

16. The system of claim 1 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first 5 file data and which is different from the second file data, said system further comprising:
a third destination device;
said shared network linking the server to the third destination device;
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and
wherein the server is adapted to transmit the third file data to the third destination device via the shared 15 network.

17. A method for transmitting a first image including a first software to a first destination device and for transmitting a second image including a second software to a second destination device, wherein the first and second 5 images include common file data, wherein the first image includes first file data and wherein the second image

includes second file data which is different from the first file data, said method comprising:

simultaneously transmitting the common data to the first

10 and second destination devices;

transmitting the first file data to the first destination device; and

transmitting the second file data to the second destination device.

18. The method of claim 17 further comprising:

transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the first image

5 and/or the second image can each be re-created by imaging.

19. The method of claim 17 further comprising:

transmitting to the first destination device first

descriptive data of the first image identifying the common data and first file data;

5 transmitting to the second destination second device

descriptive data of the second image identifying the common data and second file data.

20. The method of claim 19 further comprising:

receiving by the first destination device the common data and the first file data as defined by the first descriptive data transmitted to the first destination device.

21. The method of claim 19 further comprising:

receiving by the second destination device the common data and the second file data as defined by the second

descriptive data transmitted to the second destination
5 device.

22. The method of claim 19 further comprising directly
transmitting the first descriptive data to the first
destination device, directly transmitting the second
descriptive data to the second destination device, and
5 multicasting the common data, the first file data and the
second file data simultaneously to the first and second
destination devices.

23. The method of claim 19 further comprising maintaining
a list of destination devices and images to be transmitted
to destination devices on the list and multicasting common
data and file data corresponding to the images to be
5 transmitted to destination device on the list.

24. The method of claim 19 further comprising multicasting
the common data, the first file data and the second file
data to the first and second destination devices including
a unique identifier for the data currently being
5 transmitted.

25. The method of claim 24 wherein the first destination
device receives the common data, the first file data and
the second file data and stores only the common data and
first file data as indicated by the unique identifier.

26. The method of claim 23 wherein the first destination
device provides a first notification to the server when the
first destination device has received the common data and
the file data corresponding to the first descriptive data.

27. The method of claim 26 wherein, in response to the first notification, removing the first destination device from the list and discontinuing multicasting the file data of the first image, unless another destination device has
5 requested the first image.

28. The method of claim 26 wherein, in response to the second notification, removing the second destination device from the list and discontinuing multicasting the common data of the second image, unless another destination device
5 has requested an image which includes the common data.

29. The method of claim 26 wherein the first destination device reconstructs the image corresponding to the first descriptive data.

30. The method of claim 17 transmitting a plurality of multicast streams including common and/or descriptive data and selecting a number of multicast streams as a function of destination device restore time and as a function of
5 total bandwidth of the streams being transmitted.

31. The method of claim 17 further comprising sequentially transmitting the file data in a sequence defined by a priority.

32. The method of claim 17 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first
5 file data and which is different from the second file data, said method further comprising:

simultaneously transmitting the common data to the first, second and third destination devices via the shared network; and

10 transmitting the third file data to the third destination device via the shared network.

33. A client side system for receiving a first transmitted image including a first software from a server, the server also transmitting a second image including a second software, wherein the first and second images include

5 common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, wherein the server transmits the first image including the first software and the second image including the second software

10 in a single combined image stream from which the first image and/or the second image can each be re-created by imaging, wherein the server is adapted to transmit via the shared network to the first destination device descriptive data of the first image identifying the common data and

15 first file data, wherein the server is adapted to transmit via the shared network to the first and second destination devices the common data and file data including the first file data and the second file data; said client side system comprising:

20 a destination device including:

a link to the server;

software for receiving the descriptive data of the first image; and

software for receiving the combined image stream; and

25 software responsive to the received descriptive data of the first image for storing the common file data and the first file data.

34. The client side system of claim 33 wherein the server directly transmits the first descriptive data to the first destination device and the server directly transmits the second descriptive data to the second destination device,
5 and wherein the server multicasts the common data, the first file data and the second file data simultaneously to the first and second destination devices.

35. The client side system of claim 33:
wherein the first destination device receives the common data and the first file data via the shared network as defined by the first descriptive data transmitted to the
5 first destination device from the server.

36. The client side system of claim 33:
wherein the second destination device receives the common data and the second file data via the shared network as defined by the second descriptive data transmitted to the
5 second destination device from the server.

37. The client side system of claim 33 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different
5 from the first file data and which is different from the second file data, said system further comprising:
a third destination device;
said shared network linking the server to the third destination device;
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and

wherein the server is adapted to transmit the third file
data to the third destination device via the shared
15 network.

38. A client side system for use on a destination device
for receiving a first transmitted image including a first
software from a server, the server also transmitting a
second image including a second software, wherein the first
5 and second images include common file data, wherein the
first image includes first file data and wherein the second
image includes second file data which is different from the
first file data, wherein the server transmits the first
image including the first software and the second image
10 including the second software in a single combined image
stream from which the first image and/or the second image
can each be re-created by imaging, wherein the server is
adapted to transmit via the shared network to the first
destination device descriptive data of the first image
15 identifying the common data and first file data, wherein
the server is adapted to transmit via the shared network to
the first and second destination devices the common data
and file data including the first file data and the second
file data; said client side system comprising:
20 software for receiving the descriptive data of the first
image;
software for receiving the combined image stream; and
software responsive to the received descriptive data of the
first image for storing the common file data and the first
25 file data.

39. A client side method in which a destination device
receives a first transmitted image including a first
software from a server, wherein the server also transmits a

second image including a second software, wherein the first
5 and second images include common file data, wherein the
first image includes first file data and wherein the second
image includes second file data which is different from the
first file data, wherein the server transmits the first
image including the first software and the second image
10 including the second software in a single combined image
stream from which the first image and/or the second image
can each be re-created by imaging, wherein the server is
adapted to transmit via the shared network to the first
destination device descriptive data of the first image
15 identifying the common data and first file data, wherein
the server is adapted to transmit via the shared network to
the first and second destination devices the common data
and file data including the first file data and the second
file data; said client side method comprising:
20 receiving the descriptive data of the first image; and
receiving the combined image stream; and
storing the common file data and the first file data in
response to the received descriptive data of the first
image.

40. A server side system for transmitting a first image
including a first software and for transmitting a second
image including a second software, wherein the first and
second images include common file data, wherein the first
5 image includes first file data and wherein the second image
includes second file data which is different from the first
file data, said system comprising:
a server linked to first and second destination devices via
a shared network;

10 wherein the server is adapted to simultaneously transmit
the common data to the first and second destination devices
via the shared network; and
wherein the server is adapted to transmit the first file
data to the first destination device via the shared network
15 and the second file data to the second destination device
via the shared network.

41. The server side system of claim 40 further comprising:
said server transmitting the first image including the
first software and the second image including the second
software in a single combined image stream from which the
5 first image and/or the second image can each be re-created
by imaging.

42. The server side system of claim 40:
wherein the server is adapted to transmit first descriptive
data to the first destination device via the shared
network, said first descriptive data identifying the common
5 data and first file data of the first image; and
wherein the server is adapted to transmit second
descriptive data to the second destination device via the
shared network, said second descriptive data identifying
the common data and second file data of the second image.

43. The server side system of claim 42 wherein the server
directly transmits the first descriptive data to the first
destination device and the server directly transmits the
second descriptive data to the second destination device,
5 and wherein the server multicasts the common data, the
first file data and the second file data simultaneously to
the first and second destination devices.

44. The server side system of claim 42 wherein the server maintains a list of destination devices and images to be transmitted to destination devices on the list and multicasts common data and file data corresponding to the 5 images to be transmitted to destination device on the list.

45. The server side system of claim 40 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function 5 of destination device restore time and as a function of total bandwidth of the streams being transmitted.

46. The server side system of claim 40 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

47. The server side system of claim 40 for transmitting a third image including a third software to a third destination device, wherein the first and third images include common file data, wherein the third image includes 5 third file data which is different from the first file data and which is different from the second file data, said system further comprising:
said shared network linking the server to the third destination device;
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and
wherein the server is adapted to transmit the third file data to the third destination device via the shared 15 network.

48. A server side method for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second images include common file data, wherein the first 5 image includes first file data and wherein the second image includes second file data which is different from the first file data, said method comprising:
simultaneously transmitting the common data to the first and second destination devices via the shared network; and
10 transmitting the first file data to the first destination device via the shared network; and
transmitting the second file data to the second destination device via the shared network.

49. The server side method of claim 48 further comprising:
transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the first image 5 and/or the second image can each be re-created by imaging.

50. The server side method of claim 48 further comprising:
transmitting first descriptive data to the first destination device via the shared network, said first descriptive data identifying the common data and first file 5 data of the first image; and
transmitting second descriptive data to the second destination device via the shared network, said second descriptive data identifying the common data and second file data of the second image.

51. The server side method of claim 50 further comprising directly transmitting the first descriptive data to the first destination device and directly transmitting the

second descriptive data to the second destination device,
5 and multicasting the common data, the first file data and
the second file data simultaneously to the first and second
destination devices.

52. The server side method of claim 50 further comprising
maintaining a list of destination devices and images to be
transmitted to destination devices on the list and
multicasting common data and file data corresponding to the
5 images to be transmitted to destination device on the list.

53. The server side method of claim 48 further comprising
transmitting a plurality of multicast streams including
common and/or descriptive data and wherein the servers
selects a number of multicast streams as a function of
5 destination device restore time and as a function of total
bandwidth of the streams being transmitted.

54. The server side method of claim 48 further comprising
sequentially transmitting the file data in a sequence
defined by a priority.

55. The server side method of claim 48 for transmitting a
third image including a third software to a third
destination device, wherein the first and third images
include common file data, wherein the third image includes
5 third file data which is different from the first file data
and which is different from the second file data, said
method further comprising:
simultaneously transmitting the common data to the first,
second and third destination devices via the shared
10 network; and

transmitting the third file data to the third destination device via the shared network.

56. A data transmission method of transmitting a first image including a first software and a second image including a second software into a single combined image stream from which the first image and/or the second image
5 can each be re-created by imaging onto a destination device, wherein the first and second images include common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said method
10 comprising:

transmitting descriptive data of the first image
identifying the common data and first file data;
transmitting descriptive data of the second image
identifying the common data and second file data; and
15 transmitting the common data and file data including the first file data and the second file data.

57. The data transmission method of claim 56 wherein the transmitting of the descriptive data is on a different channel than the transmitting of the common data and the file data.

58. The data transmission method of claim 56 wherein the transmitting of the common data and the file data comprising sequentially transmitting the common data, the first file data and the second file data.

59. The data transmission method of claim 56 further comprising:

transmitting the first image including the first software
and the second image including the second software in a
5 single combined image stream from which the first image
and/or the second image can each be re-created by imaging.

60. The data transmission method of claim 56:
transmitting first descriptive data to the first
destination device via the shared network, said first
descriptive data identifying the common data and first file
5 data of the first image; and
transmitting second descriptive data to the second
destination device via the shared network, said second
descriptive data identifying the common data and second
file data of the second image.

61. The data transmission method of claim 60 further
comprising directly transmitting the first descriptive data
to the first destination device and directly transmitting
the second descriptive data to the second destination
5 device, and multicasting the common data, the first file
data and the second file data simultaneously to the first
and second destination devices.

62. The data transmission method of claim 60 further
comprising transmitting a plurality of multicast streams
including common and/or descriptive data and selecting a
number of multicast streams as a function of destination
5 device restore time and as a function of total bandwidth of
the streams being transmitted.

63. The data transmission method of claim 60 further
comprising sequentially transmitting the file data in a
sequence defined by a priority.

64. The data transmission method of claim 60 for transmitting a third image including a third software to a third destination device, wherein the first and third images include common file data, wherein the third image 5 includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:
simultaneously transmitting the common data to the first, second and third destination devices via the shared 10 network; and
transmitting the third file data to the third destination device via the shared network.

65. A modulated data signal having a data structure stored thereon including a first image including a first software and including a second image including a second software, wherein the first and second images include common file 5 data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said data structure comprising:
a first field including the common data;
10 a second field including first file data; and
a third field including second file data.

66. The data structure of claim 65 further comprising a single combined image stream from which the first image and/or the second image can each be re-created by imaging.

67. The data structure of claim 65 further comprising:

first descriptive data identifying the common data and
first file data of the first image; and
second descriptive data identifying the common data and
5 second file data of the second image.

68. The data structure of claim 65 including a plurality
of multicast streams including common and/or descriptive
data and wherein the number of multicast streams as a
function of destination device restore time and as a
5 function of total bandwidth of the streams being
transmitted.

69. A computer readable medium storing instructions for
use on a destination device for receiving a first
transmitted image including a first software from a server,
the server also transmitting a second image including a
5 second software, wherein the first and second images
include common file data, wherein the first image includes
first file data and wherein the second image includes
second file data which is different from the first file
data, wherein the server transmits the first image
10 including the first software and the second image including
the second software in a single combined image stream from
which the first image and/or the second image can each be
re-created by imaging, wherein the server is adapted to
transmit via the shared network to the first destination
15 device descriptive data of the first image identifying the
common data and first file data, wherein the server is
adapted to transmit via the shared network to the first and
second destination devices the common data and file data
including the first file data and the second file data;
20 said instructions comprising:

software for receiving the descriptive data of the first image;
software for receiving the combined image stream; and
software responsive to the received descriptive data of the
25 first image for storing the common file data and the first file data.

70. A computer readable medium storing instructions for use on a server for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second 5 images include common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said instructions comprising:
software for linking the server to first and second 10 destination devices via a shared network;
software for adapting the server to simultaneously transmit the common data to the first and second destination devices via the shared network; and
software for adapting the server to transmit the first file 15 data to the first destination device via the shared network and the second file data to the second destination device via the shared network.